SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT

PURSUANT TO SECTION 13 OR 15(d) of the

SECURITIES EXCHANGE ACT OF 1934

Date of Report (Date of earliest event reported): February 14, 2008

AtriCure, Inc.

(Exact name of registrant as specified in charter)

Delaware (State or other jurisdiction of incorporation)

000-51470 (Commission File Number) 34-1940305 (IRS Employer Identification No.)

6033 Schumacher Park Drive West Chester, OH (Address of principal executive offices)

45069 (Zip Code)

Registrant's telephone number, including area code: (513) 755-4100

Not Applicable (Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02. Results of Operations and Financial Condition.

On February 14, 2008, AtriCure, Inc. issued a press release and is holding a conference call regarding its financial results for the fourth quarter and year ended December 31, 2007. A copy of the press release is furnished as Exhibit 99.1 to this Form 8-K and is incorporated herein by reference.

The information in this Form 8-K is being furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that Section. The information in Item 2.02 of this Form 8-K shall not be incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in any such filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

No. Description

99.1 Press Release of AtriCure, Inc. dated as of February 14, 2008.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ATRICURE, INC.

By: /s/ Julie A. Piton

Julie A. Piton

Vice President and Chief Financial Officer

Dated: February 14, 2008

EXHIBIT LIST

<u>Description</u>
Press Release of AtriCure, Inc. dated as of February 14, 2008. No. 99.1



Contact

AtriCure, Inc.
Julie A. Piton
Vice President and Chief Financial Officer
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AtriCure Reports Fourth Quarter and Full Year 2007 Record Financial Results

Highlights

- Record 2007 revenues of \$48.3 million up 26% over 2006
- Record 2007 domestic open-heart revenues of \$27.3 million up 18%
- Record 2007 minimally invasive product revenues of \$14.4 million up 31%
- Record 2007 international revenues of \$6.6 million up 58%
- Fourth quarter 2007 net loss narrows to record low of \$1.6 million
- ABLATE clinical trial initiated

WEST CHESTER, Ohio – February 14 – AtriCure, Inc. (Nasdaq: ATRC), a medical device company and leader in cardiac surgical ablation systems, today announced record revenues for 2007 of \$48.3 million and record quarterly revenues of \$13.2 million for its fourth quarter 2007. The net loss for the quarter was \$1.6 million, a \$2.7 million, or 63.3 %, improvement over the fourth quarter of 2006 and the most favorable performance since becoming a public company.

"We are very encouraged by our 2007 performance and financial results. We have achieved high revenue growth in all of our business sectors and we are demonstrating strong operating leverage. Importantly, there are several key market indicators which we believe suggest that our minimally invasive business sector is positioned to gain rapid and increasing physician adoption," said David J. Drachman, President and Chief Executive Officer. "During 2007, the extraordinary men and women of AtriCure have further positioned our Company to make significant contributions toward improving and preserving human life. We strongly believe that no other atrial fibrillation company is better prepared or positioned than AtriCure to deliver results for patients, physicians and shareholders."

Record 2007 Financial Results

Revenues for 2007 were a record \$48.3 million, a 26.3% increase over 2006 revenues of \$38.2 million. Revenues from domestic open-heart products were \$27.3 million, an 18.5% increase when compared with domestic open-heart product revenues of \$23.1 million for 2006. Revenues from domestic minimally invasive products were \$14.4 million, representing a 30.6% increase over 2006 revenues of \$11.0 million. International revenues grew to \$6.6 million, a 58.5% increase over 2006 revenues of \$4.2 million.

Gross profit for 2007 was \$38.2 million and gross margin was 79.0%, compared to gross profit of \$30.6 million and gross margin of 80.1% for 2006. The decrease in gross margin for 2007 as compared to 2006 was primarily due to an increased mix of international revenues which generally provide a lower gross margin than domestic revenues. Operating expenses were \$50.7 million for 2007 as compared with \$45.4 million for 2006. The increase in operating expenses was primarily due to an increase in sales and marketing expenses. The net loss for 2007 was \$11.3 million as compared to \$13.7 million for 2006. Net loss per share was \$0.84 for 2007 as compared with a net loss per share of \$1.13 for 2006.

Cash, cash equivalents and short-term investments were \$20.0 million at December 31, 2007 and 14.1 million shares of common stock were outstanding.

Record Fourth Quarter 2007 Financial Results

Revenues for the fourth quarter of 2007 were a record \$13.2 million, a 24.1% increase over the fourth quarter of 2006 and a sequential increase of 9.1% over the third quarter of 2007. Revenues from domestic open-heart products were \$7.3 million, a 14.2% increase over the fourth quarter of 2006 of \$6.3 million and an 8.4% sequential increase. Revenues from domestic minimally invasive products were \$3.9 million, representing a 17.9% increase over fourth quarter 2006 revenues of \$3.3 million and a sequential increase of 10.1%. International revenues grew to a record \$2.0 million for the fourth quarter of 2007, a 111.3% increase over fourth quarter 2006 revenues of \$1.0 million and a sequential increase of 9.8%.

Gross profit for the fourth quarter of 2007 was \$10.5 million and gross margin was 80.1%, compared to gross profit of \$8.2 million and a gross margin of 77.8% for the fourth quarter of 2006. The improvement in gross margin was primarily associated with a fourth quarter 2006 inventory valuation adjustment. Operating expenses were \$12.2 million for the fourth quarter of 2007, a decrease of \$0.5 million or 4.2%, as compared with fourth quarter 2006 operating expenses of \$12.7 million and, sequentially, operating expenses were comparable with the third quarter of 2007. The decrease in operating expenses as compared with the fourth quarter of 2006 was primarily due to a reduction in administrative related expenses.

The net loss for the fourth quarter of 2007 was \$1.6 million, a record low since becoming a public company and a \$2.7 million, or 63.3%, improvement as compared with the fourth quarter 2006 net loss of \$4.3 million. Sequentially, the net loss improved by \$1.0 million, or 39.8%, driven primarily by increased revenues and gross profit on comparable total operating expenditures. Net loss per share was a record low of \$0.11, an improvement of 68.6% or \$0.24 per share, as compared to the fourth quarter 2006 net loss per share of \$0.35. The improvement in the net loss per share for the fourth quarter of 2007 as compared with the fourth quarter of 2006 was primarily due to increased revenues and gross profit combined with a slight reduction in operating expenses. Sequentially, net loss per share improved by 38.9% or \$0.07 per share over the third quarter of 2007.

Financial Guidance

For 2008, the Company expects annual revenues to be in the range of \$58 to \$60 million and net loss per share to be in the range of \$0.55 to \$0.70. "As we look forward to 2008, we believe AtriCure is well positioned to further develop and gain share in each of the markets in which we compete," said David J. Drachman. "The AF market continues to evolve and we look forward to continued execution of our strategy and further expanding on our strong leadership position."

ABLATE Clinical Trial Initiated

On February 11, 2008 the Company announced that the first patient was successfully treated as part of it's ABLATE clinical trial. The purpose of the ABLATE clinical trial is to evaluate the safety and effectiveness of

AtriCure's Isolator Synergy^(TM) bipolar ablation system for reestablishing normal heart rhythm in patients with permanent atrial fibrillation, or AF, requiring concomitant open-heart surgery utilizing the Cox Maze IV procedure. ABLATE is expected to enroll approximately 70 patients at 10 medical centers in the United States. The primary efficacy endpoints for the trial are patients being free from AF and off anti-arrhythmic drugs at six months. Upon the completion of a successful trial, the results will be submitted to the FDA as part of a Pre-Market Approval, or PMA, in support of an AF indication for the Company's Isolator Synergy^(TM) bipolar ablation system when used to treat patients undergoing concomitant open-heart surgery. The principal investigator of the ABLATE trial is Dr. Niv Ad, the Director of Cardiac Surgery Research at Fairfax Hospital Department of Cardiovascular and Thoracic Surgery in Fairfax, Virginia.

"As one of the premier AF centers in the world, we are committed to working with industry and the FDA in order to investigate these new and important technologies for the treatment of AF. It is estimated that AF affects more than 5.5 million people worldwide and patients who have AF are four to five times more likely to have a stroke when compared to patients in normal sinus rhythm. In addition, these patients can experience debilitating symptoms from their AF including heart palpitations, dizziness, fatigue and shortness of breath," commented Dr. Ad. "We believe that the ABLATE clinical trial is an important and well designed study to further determine the safety and effectiveness of ablation treatments for AF patients undergoing open-heart surgery."

Conference Call

AtriCure will host a conference call at 10:00 a.m. ET on Thursday, February 14, 2008 to discuss fourth quarter and full year 2007 results. A live web cast of the conference call will be available online from the investor relations page of AtriCure's corporate web site at www.atricure.com. Pre-registration is available for this call at the following URL:

https://www.theconferencingservice.com/prereg/key.process?key=PQ8Q3WXJN

Pre-registering is not mandatory but is recommended as it will provide you immediate entry into the call and will facilitate the timely start of the conference. Pre-registration only takes a few moments and you may pre-register at any time, including up to and after the call start time. Alternatively, if you prefer being placed into the call by an operator, please call (888) 713-4214 for domestic callers and (617) 213-4866 for international callers at least 15 minutes prior to the call start time and use reservation number 25413911.

The web cast will remain available on AtriCure's web site through March 15, 2008. A telephonic replay of the call will also be available until March 15, 2008. The replay dial-in numbers are (888) 286-8010 for domestic callers and (617) 801-6888 for international callers. Please use reservation code 60682842.

About AtriCure, Inc.

AtriCure, Inc. is a medical device company and a leader in developing, manufacturing and selling innovative cardiac surgical ablation systems designed to create precise lesions, or scars, in cardiac, or heart, tissue. Medical journals have described the adoption by leading cardiothoracic surgeons of the AtriCure Isolator® bipolar ablation system as a treatment alternative during open-heart surgical procedures to create lesions in cardiac tissue to block the abnormal electrical impulses that cause atrial fibrillation, or AF, a rapid, irregular quivering of the upper chambers of the heart. Additionally, medical journals and leading cardiothoracic surgeons have described the AtriCure Isolator® system as a promising treatment alternative for patients who may be candidates for sole-therapy minimally invasive procedures. AF affects more than 5.5 million people worldwide and predisposes them to a five-fold increased risk of stroke.

The FDA has cleared the AtriCure Isolator® bipolar ablation system, including the new Isolator Synergy^(TM) ablation clamps and the AtriCure multifunctional bipolar Pen, for the ablation, or destruction, of cardiac tissue during surgical procedures. Additionally, the FDA has cleared the AtriCure Pen for temporary pacing, sensing, stimulating and recording during the evaluation of cardiac arrhythmias. To date, the FDA has not cleared or approved AtriCure's products for the treatment of AF. AtriCure's left atrial appendage clip system has not been approved for commercial use. It is currently being used in clinical evaluations in Europe.

Forward-Looking Statements

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include statements that address activities, events or developments that AtriCure expects, believes or anticipates will or may occur in the future, such as earnings estimates, other predictions of financial performance, launches by AtriCure of new products and market acceptance of AtriCure's products. Forward-looking statements are based on AtriCure's experience and perception of current conditions, trends, expected future developments and other factors it believes are appropriate under the circumstances and are subject to numerous risks and uncertainties, many of which are beyond AtriCure's control. These risks and uncertainties include the rate and degree of market acceptance of AtriCure's products, AtriCure's ability to develop and market new and enhanced products, the timing of and ability to obtain and maintain regulatory clearances and approvals for its products, the timing of and ability to obtain reimbursement of procedures utilizing AtriCure's products, competition from existing and new products and procedures or AtriCure's ability to effectively react to other risks and uncertainties described from time to time in AtriCure's SEC filings, such as fluctuation of quarterly financial results, reliance on third party manufacturers and suppliers, litigation (including the purported class action lawsuit) or other proceedings, government regulation and stock price volatility. AtriCure does not guarantee any forward-looking statement, and actual results may differ materially from those projected. AtriCure undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

ATRICURE, INC. CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS (Unaudited)

	Three Months Ended December 31,		Twelve Months Ended December 31,	
	2007	2006	2007	2006
Revenues	\$ 13,151,615	\$ 10,599,352	\$ 48,309,063	\$ 38,243,243
Cost of revenues	2,618,710	2,355,258	10,136,776	7,626,362
Gross profit	10,532,905	8,244,094	38,172,287	30,616,881
Operating expenses:				
Research and development expenses	2,532,379	3,204,667	10,987,477	12,215,617
Selling, general and administrative expenses	9,627,487	9,494,000	39,752,513	33,170,328
Total operating expenses	12,159,866	12,698,667	50,739,990	45,385,945
Loss from operations	(1,626,961)	(4,454,573)	(12,567,703)	(14,769,064)
Other income	61,580	191,008	1,314,637	1,051,789
Net loss available to common stockholders	\$ (1,565,381)	\$ (4,263,565)	\$ (11,253,066)	\$ (13,717,275)
Basic and diluted loss per share	\$ (0.11)	\$ (0.35)	\$ (0.84)	\$ (1.13)
Weighted average shares outstanding:		<u> </u>		
Basic and diluted	14,131,013	12,184,080	13,381,715	12,137,258

ATRICURE, INC. CONDENSED CONSOLIDATED BALANCE SHEETS (Unaudited)

	Decem	December 31,	
	2007	2006	
Assets			
Current assets:			
Cash and cash equivalents	\$ 13,000,652	\$ 14,890,383	
Short-term investments	7,006,041	4,598,032	
Accounts receivable, net	7,189,512	6,562,342	
Inventories, net	5,266,155	3,389,400	
Other current assets	1,400,163	1,247,738	
Total current assets	33,862,523	30,687,895	
Property and equipment, net	4,466,060	3,643,069	
Intangible assets	850,653	772,778	
Goodwill	6,763,259	3,840,837	
Other assets	129,001	183,486	
Total Assets	\$ 46,071,496	\$ 39,128,065	
Liabilities and Stockholders' equity			
Current liabilities:			
Accounts payable and accrued liabilities	\$ 8,413,656	\$ 7,265,424	
Current maturities of debt, capital lease obligations and long-term debt	825,146	391,460	
Total current liabilities	9,238,802	7,656,884	
Long-term debt and capital lease obligations	282,475	692,544	
Other liabilities	313,717	84,375	
Total liabilities	9,834,994	8,433,803	
Stockholders' equity:			
Common stock	14,132	12,189	
Additional paid-in capital	103,524,814	86,646,064	
Other comprehensive income	5,286	90,673	
Accumulated deficit	(67,307,730)	(56,054,664)	
Total stockholders' equity	36,236,502	30,694,262	
	-		

\$ 46,071,496

\$ 39,128,065

Total Liabilities and Stockholders' equity

ATRICURE, INC. CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Unaudited)

	Twelve Months Er	nded December 31,
Cash flows from operating activities:		
Net loss	\$ (11,253,066)	\$ (13,717,275)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	2,321,786	1,885,303
Loss (gain) on disposal of equipment	91,396	(20,000)
Provision for losses in accounts receivable	(132,308)	81,420
Share-based compensation expense	1,892,217	1,045,768
Changes in assets and liabilities, excluding effects of acquired business:		
Accounts receivable	(494,862)	(1,778,699)
Inventories, net	(1,376,615)	(1,254,259)
Other current assets	(152,425)	(402,408)
Accounts payable and accrued liabilities	760,267	1,615,642
Other non-current assets and liabilities	234,904	78,778
Net cash used in operating activities	(8,108,706)	(12,465,730)
Cash flows from investing activities:		
Purchases of property & equipment, net	(3,044,546)	(1,680,520)
Proceeds from sale of property & equipment	_	20,000
Purchases of available-for-sale securities	(8,208,668)	(6,289,837)
Maturities of available-for-sale securities	5,808,000	8,065,000
Cash paid for acquisition, net	(3,341,349)	_
Net cash (used in) provided by investing activities	(8,786,563)	114,643
Cash flows from financing activities:		
Payments on long-term debt and capital lease obligations	(393,675)	(369,835)
Net proceeds from private placement of common shares	15,317,002	_
Proceeds from stock option exercises	174,941	92,470
Net cash provided by (used in) financing activities	15,098,268	(277,365)
Effect of exchange rate changes on cash	(92,730)	85,887
Net change in cash and cash equivalents	(1,889,731)	(12,542,565)
Cash and cash equivalents - beginning of period	14,890,383	27,432,948
Cash and cash equivalents - end of period	\$ 13,000,652	\$ 14,890,383